Washington State Emergency Cardiac and Stroke System
Participation Criteria for Level 1, 2 & 3 Stroke Centers

Level 1 (Comprehensive) Stroke Centers

A comprehensive stroke center (CSC) is defined as a facility or system with the personnel, infrastructure, and expertise to diagnose and treat stroke patients who require intensive medical and surgical care, specialized tests, or interventional therapies. The types of patients who might use and benefit from a CSC include, but are not limited to, patients with large ischemic strokes or hemorrhagic strokes, those with strokes from unusual etiologies or requiring specialized testing or therapies, or those requiring multispecialty management. Additional functions of a CSC would be to act as a resource center for other facilities in their region, such as Level 2 [primary stroke centers (PSC)] and Level 3 stroke centers. This might include providing expertise about managing particular cases, offering guidance for triage of patients, making diagnostic tests or treatments available to patients treated initially at a PSC, and being an educational resource for other hospitals and health care professionals in a city or region. The criteria proposed for a Level 1 CSC is based on the 2005 Brain Attack Coalition (BAC) paper on comprehensive stroke centers.

Level 2 (Primary) Stroke Centers

A primary stroke center (PSC) has the necessary staffing, infrastructure, and programs to stabilize and treat most acute stroke patients. The criteria proposed for a Level 2 PSC is consistent with the Joint Commission criteria for PSC certification in 2007. This criteria came from a collaboration between The American Stroke Association, a large multi-specialty advisory group, and the Brain Attack Coalition (BAC), and is based on the 2000 consensus statement from the BAC.

Level 3 Acute Stroke Capable

These hospitals have the infrastructure and capability to care for acute stroke, including administration of intravenous t-PA. Most stroke patients would be transferred to a Level 1 or 2 post-treatment.

Participation Criteria for Washington State Stroke System	Level 1 Stroke Center	Level 2 Stroke Center	Level 3 Stroke Center
Personnel includes			
Acute stroke team available 24/7 w/in 15 minutes	X	X	
Emergency department personnel trained in diagnosing and treating acute stroke and who participate in educational activities related to stroke at least twice a year	X	X	X (4 hrs/yr of CME)
Staff (in-person or remotely) to read CT/MRI w/in 45 minutes of order 24/7	X	X	X
Qualified Center Medical Director	X	X	
Stroke Program Coordinator	X	X	
Neurologist available 24/7: on-site within 20 minutes of notification of patient's arrival; or by telemedicine (e.g., phone, video-conference) within 20 minutes of notification of patient's arrival and on-site within 45 minutes if needed	X		
Neurologist or physician experienced in cerebrovascular care available 24/7: on-site within 20 minutes of notification of patient's arrival; or by telemedicine (e.g., phone, video-conference) within 20 minutes of notification of patient's arrival, and transfer protocols in place for appropriate cases		X	X
Neurosurgeon w/in 30 minutes 24/7	X		
Board-certified vascular neurologist or an ABPN-certified neurologist who has completed 12 months of formal training in vascular neurology, or who devotes a minimum of 25% of practice time to vascular neurology	X		

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Vascular surgeon	X		
Diagnostic radiology	X	X	
Neuroradiology	X		
Interventional/endovascular physician(s)	X		
Critical care medicine or neurocritical care physicians	X		
Physical medicine and rehabilitation physician	X		
Rehabilitation therapists (physical, occupational, speech therapy)	X	X	
Staff stroke nurses(s)	X	X	
Radiologic Technologist	X	X	
Diagnostic techniques			
CT or MRI performance w/in 25 minutes of order 24/7	X	X	X
ECG and Chest X-ray	X	X	X
MRI with diffusion	X		
MRA/MRV	X		
CTA	X		
Digital cerebral angiography	X		
TCD	X		
Carotid artery imaging [R for recommended; not a Joint Commission PSC requirement]	X	X [R]	
Intracranial and extracranial vascular imaging [R for recommended; not a Joint Commission PSC requirement]	X	X [R]	
Transesophageal echo	X		
Swallowing assessment screening	X	X	X
Surgical and interventional therapies:			
IV thrombolytic therapy	X	X	X
CEA	X		
Treatment of intracranial aneurysm	X		
Placement of ventriculostomy	X		
Hematoma removal/draining	X		
Placement of intracranial pressure transducer	X		
Endovascular ablation of IAs/AVMS	X		
IA reperfusion therapy	X		
Endovascular Rx of vasospasm	X		
Stenting/angioplasty of extracranial vessels or referral mechanism/protocol	X		
Stenting/angioplasty of intracranial vessels or referral mechanism/protocol	X		
Infrastructure			
Written stroke protocols, which include triage, stabilization of vital functions, initial diagnostic tests, and use of medications.	X	X	X
Stroke unit (may be part of an ICU)	X	X	
Organizational/administrative support	X	X	X
Integration with EMS, with a written plan and letter of cooperation regarding triage and communication which are consistent with regional patient care procedures."	X	X	X
Cooperative stroke-specific educational activities at least twice a year	X	X	X
Transfer protocols and agreements in place	X	X	X
Laboratory or point of care testing 24/7	X	X	X
Provides community/regional resources for guidance and	X		

Participation Criteria for Washington State Stroke System	Level 1 Stroke Center	Level 2 Stroke Center	Level 3 Stroke Center
recommendations			
ICU [R for recommended; not a Joint Commission PSC requirement]	X	X [R]	
Operating room coverage 24/7	X		
Interventional services coverage 24/7	X		
Stroke registry	X	X	
Data collection and reporting on measures identified by DOH for the Statewide Emergency Cardiac and Stroke System (based on recommendations of the ECS TAC)	X	X	X
Stroke clinic	X		
Educational/research programs			
≥8 hours education/year related to cerebrovascular disease for all stroke team staff	X	X	
Community stroke education activities	X	X 1/yr	
Community stroke prevention activities	X		
Actively participate in professional education	X		
Patient education	X	X	X
Performance/quality measures			
Stroke unit documentation about staffing, operation, admission/discharge, care protocols, census and outcome data.	X	X	
Performance improvement on at least 2 relevant patient-care benchmarks each year	X	X	
Timeline for t-PA administration within current guidelines	X	X	X
10 harmonized performance measures: -deep vein thrombosis prophylaxis -discharged on antithrombotic therapy -patients with atrial fibrillation receiving anticoagulation therapy -thrombolytic therapy administered -antithrombotic therapy by end of hospital day -discharged on cholesterol reducing medication -stroke education -smoking cessation/advice/counseling -assessed for rehabilitation -swallowing (dysphagia) screening	X	X	

[R] means recommended; it is not required for Joint Commission Primary Stroke Center certification.